UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5

IN THE MATTER OF:	)	
	)	
Renergy, Inc.	)	**NOTICE OF VIOLATION**
Marengo, Ohio	)	
	)	**EPA-5-22-OH-04**
Proceedings Pursuant to	)	
Section 113(a)(1) of the	)	
Clean Air Act, 42 U.S.C.	)	
§ 7413(a)(1)	)	

NOTICE OF VIOLATION

The U.S. Environmental Protection Agency (EPA) is issuing this Notice of Violation under Section 113(a)(1) of the Clean Air Act, 42 U.S.C. § 7413(a)(1). EPA finds that Renergy, Inc. (Renergy) is violating the Ohio State Implementation Plan (SIP), as follows:

Statutory and Regulatory Background

1. Section 110(a)(1) of the CAA, 42 U.S.C. § 7410(a)(1), requires each state to adopt and submit to the EPA for approval a State Implementation Plan (SIP) that provides for the implementation, maintenance, and enforcement of the National Ambient Air Quality Standards (NAAQS). Under Section 110(a)(2)(C) of the CAA, 42 U.S.C. § 7410(a)(2)(C), each SIP must include a permit program to regulate the modification and construction of any stationary source of air pollution as necessary to assure that NAAQS are achieved.

2. Section 113(a)(1) of the CAA, 42 U.S.C. § 7413(a)(1), authorizes the Administrator to initiate an enforcement action whenever, among other things, the Administrator finds that any person has violated or is in violation of a requirement or prohibition of an applicable permit.

3. Under 40 C.F.R. § 52.23, any permit limitation or condition contained within a permit issued under an EPA-approved program that is incorporated in a SIP, is a requirement of the SIP, and is federally enforceable under Section 113.

4. On June 28, 1989, EPA promulgated Requirements for the Preparation, Adoption and Submittal of Implementation Plans. 54 Fed. Reg. 27,274. In that rulemaking, EPA clarified its regulations to specify that state-issued operating permits may be treated as "federally enforceable" if certain criteria are met and the permit program is approved by EPA under Section 110(a)(2)(C) of the CAA, 42 U.S.C. § 7410(a)(2)(C). The criteria for such Federally Enforceable State Operating Permit Programs include that all emission limitations, controls, and other requirements imposed by such permits are permanent, quantifiable, and otherwise enforceable as a practical matter. *See* 54 Fed. Reg. 27,282.

5. On March 22, 2013, EPA approved, with specified exceptions, Ohio's Permit to Install and Operate (PTIO) program as part of the federally enforceable SIP for Ohio (78 FR 11748), and approved revisions to the PTIO program periodically thereafter. The PTIO program rule provisions approved by EPA include those referenced in paragraphs 6 and 7 below.

6. Rule 3745-31-01(WWW) of the Ohio Administrative Code defines "new source" as any air contaminant source for which an owner or operator undertakes a continuing program of installation or modification or enters into a binding contractual obligation to undertake and complete, within a reasonable time, a continuing program of installation or modification, after January 1, 1974, and that at the time of installation or modification, would have otherwise been subject to the provisions of this chapter.

7. Rule 3745-31-02(A)(1)(b) of the Ohio Administrative Code states that except as provided in Rule 3745-31-03 or Rule 3745-31-02(A)(3) of the Ohio Administrative Code, no person shall cause, permit, or allow the installation or modification, and subsequent operation of any new source that is not part of a facility, as defined in Chapter 3745-77 of the Ohio Administrative Code, and that is not required to obtain a Title V permit under Chapter 3745-77 of the Ohio Administrative Code, without first obtaining a PTIO from the director.

8. On October 1, 1982, EPA approved Ohio Administrative Code Rule 3745-15-06, Malfunction of Equipment; Scheduled Maintenance; Reporting, as part of the federally enforceable SIP for Ohio. (47 F.R. 43375). The rule provisions approved by EPA include those referenced in paragraphs 9 and 10 below.

9. Rule 3745-15-06(A)(2) of the Ohio Administrative Code states that except as otherwise indicated in Rule 3745-15-06(A)(3) of the Ohio Administrative Code, scheduled maintenance of air pollution control equipment, that requires the shutdown or bypassing of said equipment, must be accompanied by the shutdown of the associated air pollution sources.

10. Rule 3745-15-06(A)(3) of the Ohio Administrative Code states that in cases where a complete source shutdown may result in damage to the air pollution sources or is otherwise impossible or impractical, the owner or operator may request authorization to continue operating the sources during the scheduled maintenance of air pollution control equipment. Any such request shall be made in a written report at least two weeks prior to the planned shutdown of the air pollution control equipment. The director shall authorize the shutdown of the air pollution control equipment if, in his judgment, the situation justifies continued operation of the sources.

Renergy's Facilities

11. Renergy owns and operates an anaerobic digester operation at 1146 Herr Road, Fairborn, Ohio, d.b.a. Dovetail Energy, LLC (Dovetail). The operation includes, but is not limited to, an anaerobic digester with flare and an internal combustion engine powered by biogas.

12. Renergy owns and operates an anaerobic digester operation at 2279 County Road 156, Cardington, Ohio, d.b.a. Emerald BioEnergy, LLC (Emerald). The operation includes, but is not limited to, an anaerobic digester with flare and an internal combustion engine powered by biogas.

Permitting Background

Dovetail

13. On April 9, 2018, Ohio EPA issued to Renergy, for the anaerobic digester with flare and internal combustion engine at the Dovetail facility, PTIO number P0124072, which expires on April 9, 2028. The permit contains various federally enforceable provisions, including those listed in paragraphs 14 through 28 below.

14. On January 15, 2020, Ohio EPA issued to Renergy an administrative modification to PTIO P0124072, designated as number P0127783, which expires on April 9, 2028. This modification updated the provisions for the engine.

15. P0127783 Condition C.1.c)(1) requires that Renergy only burn digester gas with a minimum heat content of 500 Btu/scf in the engine.

16. P0127783 Condition C.1.d)(7) requires that Renergy maintain monthly records of the heat content of the digester gas.

17. P0127783 Condition C.1.e)(3)(b) requires that Renergy identify in the Permit Evaluation Report (PER) each month during which digester gas with a minimum heat content of less than 500 Btu/scf was burned in the engine.

18. P0127783 Condition C.1.c)(2) prohibits combustion of digester gas in the engine with hydrogen sulfide concentration above 1,000 ppm.

19. P0127783 Condition C.1.d)(6) requires that Renergy monitor and record hydrogen sulfide concentration when operating the engine with digester gas using one of the two following options:

    1) Weekly sampling using a gas detector tube or portable gas monitoring meter; or
    2) Continuous digester gas monitoring system.

20. P0127783 Condition C.1.e)(3)c requires that Renergy identify in the PER each period during which digester gas containing a hydrogen sulfide concentration above the allowed concentration was burned.

21. P0124072 Condition C.2.c)(2) prohibits combustion of digester gas with a heat content of less than 500 Btu/scf in the flare.

22. P0124072 Condition C.2.d)(2) requires that Renergy maintain monthly records of the heat content of the digester gas, in Btu/scf.

23. P0124072 Condition C.2.e)(3)b requires that Renergy identify in the PER each month periods during which digester gas with a minimum heat content of less than 500 Btu/scf was burned in the flare.

24. P0124072 Condition C.2.c)(1) prohibits combustion of digester gas in the flare with a hydrogen sulfide concentration above 1,000 ppm.

25. P0124072 Condition C.2.d)(1) requires that Renergy monitor and record hydrogen sulfide concentrations when operating the flare with digester gas using one of the two following options:

    1) Weekly sampling using a gas detector tube or portable gas monitoring meter; or
    2) Continuous digester gas monitoring system.

26. P0124072 Condition C.2.e)(3)c requires that Renergy identify in the PER each period during which digester gas containing a hydrogen sulfide concentration greater than 1,000 ppmv was burned.

27. P0124072 Condition C.2.b)(2)c requires that the emissions from the digestion process be vented to the flare so as not to allow biogas pressure to build in any tank that would induce emergency venting through tank pressure relief valves to the atmosphere when the engine is not firing digester gas.

28. P0127783 Condition A.9. requires that Renergy perform scheduled maintenance of air pollution control equipment in accordance with Rule 3745-15-06(A) of the Ohio Administrative Code. If scheduled maintenance requires shutting down or bypassing any air pollution control equipment, Renergy must also shut down the emissions unit(s) served by the air pollution control equipment during maintenance, unless the conditions of Rule 3745-15-06(A)(3) of the Ohio Administrative Code are met. Any emissions that exceed permitted amount(s) under the permit (unless specifically exempted by rule) must be reported as deviations in the annual PER, including nonexempt excess emissions that occur during approved scheduled maintenance.

Emerald

29. On November 19, 2018, Ohio EPA issued to Renergy, for the anaerobic digester with flare and internal combustion engion at the Emerald facility, PTIO number P0125003, which expires on November 19, 2028. The permit contains various federally enforceable provisions, including those listed in paragraphs 30 through 43 below.

30. P0125003 Condition C.1.c)(1) requires that Renergy only burn digester gas with a minimum heat content of 500 Btu/scf in the engine.

31. P0125003 Condition C.1.d)(4) requires that Renergy maintain monthly records of the heat content of the digester gas in the engine, in Btu/scf.

32. P0125003 Condition C.1.d)(5) requires that Renergy monitor and record hydrogen sulfide concentrations when operating the engine with digester gas using one of the two following options:

    1) Weekly sampling using a gas detector tube or portable gas monitoring meter; or
    2) Continuous digester gas monitoring system.

33. P0125003 Condition C.1.e)(3)(b) requires that Renergy identify in the PER each month periods during which digester gas with a minimum heat content of less than 500 Btu/scf was burned in the engine.

34. P0125003 Condition C.1.c)(2) requires the digester gas combusted in the engine not exceed 1,000 ppmv of hydrogen sulfide.

35. P0125003 Condition C.1.b)(1)(a) requires that sulfur dioxide emissions from the engine not exceed 0.33 lb/mmBtu. Renergy must demonstrate compliance with the emission limit by using the method found at P0125003 Condition C.1.f)(1)(a).

36. P0125003 Condition C.2.b)(2)c. requires that the emissions from the digestion process be vented to the flare when the engine is not firing digester gas.

37. P0125003 Condition C.2.c)(2) prohibits combustion of digester gas with a heat content of less than 500 Btu/scf in the flare.

38. P0125003 Condition C.2.d)(1) requires that Renergy monitor and record hydrogen sulfide concentrations when operating the flare with digester gas using one of the two following options:

    1) Weekly sampling using a gas detector tube or portable gas monitoring meter.

    2) Continuous digester gas monitoring system.

39. P0125003 Condition C.2.d)(2) requires that Renergy maintain monthly records of the heat content of the digester gas in the flare, in Btu/scf.

40. P0125003 Condition C.2.e)(3)(b) requires that Renergy identify in the PER each month periods during which digester gas with a minimum heat content of less than 500 Btu/scf was burned in the flare.

41. P0125003 Condition C.2. c)(1) requires the digester gas combusted in the flare not exceed 1,000 ppmv of hydrogen sulfide.

42. P0125003 Condition C.2.b)(1)(a) requires that sulfur dioxide emissions from the flare not exceed 0.33 lb/mmBtu. Renergy must demonstrate compliance with the emission limit by using the method found at P0125003 Condition C.2.f)(1)(d).

43. P0125003 Condition A.9. requires that Renergy perform scheduled maintenance of air pollution control equipment in accordance with Rule 3745-15-06(A) of the Ohio

Administrative Code. If scheduled maintenance requires shutting down or bypassing any air pollution control equipment, Renergy must also shut down the emissions unit(s) served by the air pollution control equipment during maintenance, unless the conditions of Rule 3745-15-06(A)(3) of the Ohio Administrative Code are met. Any emissions that exceed permitted amount(s) under the permit (unless specifically exempted by rule) must be reported as deviations in the annual PER, including nonexempt excess emissions that occur during approved scheduled maintenance.

Factual Background

44. On October 4, 2021, EPA issued an information request under Section 114 of the Clean Air Act ("the First Information Request") to Renergy, which included requests for information pertaining to the Dovetail and Emerald facilities. Renergy responded on December 17, 2021.

45. On January 13, 2021, EPA and Renergy staff held a virtual conference to discuss the information submitted in response to the First Information Request. On January 14, 2022, EPA posed follow-up questions to Renergy ("the First Follow-up Request"), which Renergy responded to on January 28, 2022, February 28, 2022, and March 16, 2022.

46. On March 16, 2022, EPA issued a second information request under Section 114 of the Clean Air Act to Renergy ("the Second Information Request"). Renergy submitted its responses according to a phased schedule, as follows: Renergy submitted its first set of response to the Second Information Request on May 4, 2022; its second set of responses to the Second Information Request on June 3, 2022, and the final set of responses to the Second Information Request on July 5, 2022.

Monitoring and Recordkeeping

47. In response to the First Information Request asking for the continuous or weekly hydrogen sulfide monitoring records, Renergy submitted records showing monthly average hydrogen sulfide data. In response to the First Follow-up Request and Second Information Request, Renergy submitted additional hydrogen sulfide monitoring records.

48. The hydrogen sulfide records for Dovetail lack data from July 3, 2020 through September 26, 2021 while, according to Renergy, both the flare and the engine were down. The hydrogen sulfide records for Emerald include data for the period between June 21, 2020 and November 4, 2021, but, according to Renergy, the flare and the engine were both down during this period.

49. The records show the hydrogen sulfide concentration of the digester gas at Dovetail on January 7, 2019 was 1,255 ppm, and on July 2, 2020 was 1,850 ppm .

50. The records show the hydrogen sulfide concentration of the digester gas at Emerald has been above 1,000 ppm on 76 days between December 8, 2021 and April 29, 2022.

51. EPA calculated sulfur dioxide emissions from the digester gas at Emerald to be above 0.33 lb/mmBtu on 56 days between December 8, 2021 and April 29, 2022.

52. In response to the First Information Request, the First Follow-up Request, and the Second Information Request, Renergy submitted records pertaining to the monthly heat content and methane concentration.

53. Records for Dovetail show a methane concentration of greater than zero percent in the digester gas on July 2, 2020, September 27, 2021, and October 4, 2021 while, according to Renergy, the flare and the engine were both down.

54. EPA determined the heat content of the digester gas at Dovetail was below the permitted threshold of 500 BTU/scf on January 11, 2019 and April 22, 2019.

55. EPA determined the heat content of the digester gas at Emerald was below the permitted threshold of 500 BTU/scf on 55 days between December 10, 2018 and April 29, 2022, including 52 days between December 10, 2018 and June 21, 2020, while, according to Renergy, the flare and the engine were both operating, and on 3 days between December 7, 2021 and February 10, 2022, while, according to Renergy, the flare was operating, but the engine was down.

56. Records for Emerald show a methane concentration of greater than zero percent in the digester gas on 86 days between June 29, 2020 and November 4, 2021, while, according to Renergy, the flare and the engine were both down. [*See* Attachment B]

Permit Evaluation Reports (PERs)

57. In response to the First Follow-up Request, Renergy submitted the PERs for 2018, 2019, 2020, and 2021 for Dovetail and Emerald, and confirmed that these were the PERs submitted to Ohio EPA.

58. The PERs submitted for Dovetail and Emerald reported no deviations or exceedances with regard to the heat content or hydrogen sulfide levels of the digester gas for the years of 2018 through 2021.

Anaerobic Digesters, Engine, and Flare Operations

59. In response to the First Information Request, the First Follow-up Request, and the Second Information Request, Renergy provided information pertaining to the operational status of the anaerobic digester, engine, and flare at both facilities.

60. Renergy stated that Dovetail's digester has been operating continuously since commissioning in 2018. Renergy stated that Emerald's digester has been operating continuously since commissioning in 2018.

61. Renergy stated that Dovetail continued receiving waste material during reseed periods at the digester. Renergy stated that Emerald stopped receiving waste material from July 18, 2021 to October 21, 2021.

62. Renergy stated the engine at Dovetail was not operating from June 25, 2020 through December 4, 2021. The engine at Emerald was not operating starting on June 21, 2020 and was scheduled to come back online in approximately March 2022. In response to the Second Information Request, Renergy notified EPA that the engine at Emerald was still not in operation.

63. Renergy stated the flare at Dovetail did not operate from June 29, 2020 to October 5, 2021 and the flare at Emerald did not operate from June 21, 2020 to December 6, 2021.

Violations

Dovetail

64. By exceeding 1,000 ppmv concentration of hydrogen sulfide in the digester gas sent to the engine at Dovetail on January 7, 2019, Renergy violated P0127783 Condition C.1.c)(2).

65. By exceeding 1,000 ppmv concentration of hydrogen sulfide in the digester gas sent to the flare at Dovetail on January 7, 2019, Renergy violated P0124072 Condition C.2.c)(1).

66. By combusting digester gas in the engine with a heat content of less than 500 Btu/scf at Dovetail, Renergy violated P0127783 Condition C.1.c)(1) on January 11, 2019 and April 22, 2019.

67. By combusting digester gas in the flare with a heat content of less than 500 Btu/scf at Dovetail, Renergy violated P0124072 Condition C.2.c)(2) on January 11, 2019 and April 22, 2019.

68. By failing to report the January 7, 2019 exceendance in the 2020 PER, which represents a period during which digester gas containing an hydrogen sulfide concentration greater than 1,000 ppmv was burned in the engine, Renergy violated P0127783 Condition C.1.e)(3)c.

69. By failing to report the January 7, 2019 exceedance in the 2020 PER, which represents a period during which digester gas containing an hydrogen sulfide concentration greater than 1,000 ppmv was burned in the flare, Renergy violated P0124072 Condition C.2.e)(3)c.

70. By failing to direct gas to the flare when the engine was nonoperational from June 29, 2020 through October 5, 2021, Renergy violated P0124072 Condition C.2.b)(2)c.

71. By shutting down the flare without authorization from the permitting authority from June 29, 2020 through October 5, 2021, while continuing to operate the digester, Renergy violated P0124072 Condition A.9.

Emerald

72. By exceeding 1,000 ppmv concentration of hydrogen sulfide in the digester gas sent to the flare at Emerald on 76 days between December 8, 2021 and April 29, 2022, Renergy violated P0125003 Condition C.2. c)(1) [*see* Attachment A].

73. By combusting digester gas in the engine with a heat content of less than 500 Btu/scf at Emerald, Renergy violated P0125003 Condition C.1.c)(1) on 52 days between December 10, 2018 and June 21, 2020 [*see* Attachment B].

74. By combusting digester gas in the flare with a heat content of less than 500 Btu/scf at Emerald, Renergy violated P0125003 Condition C.2.c)(2) on 55 days between December 10, 2018 and April 29, 2022 [*see* Attachment B].

75. By failing to report in the 2021 PER each month during which digester gas with a minimum heat content of less than 500 Btu/scf was burned in the engine, Renergy violated P0125003 Condition C.1.e)(3)b.

76. By failing to report in the 2021 PER each month during which digester gas with a minimum heat content of less than 500 Btu/scf was burned in the flare, Renergy violated P0125003 Condition C.2.e)(3)b.

77. By exceeding 0.33 lb/mmBtu sulfur dioxde emissions from the flare on 56 days between December 8, 2021 and April 29, 2022, Renergy violated P0125003 Condition C.2.b)(1)(a) [*see* Attachment C].

78. By failing to direct gas to the flare when the engine was nonoperational from June 21, 2021 through December 6, 2021, Renergy violated P0125003 Condition C.2.b)(2)c.

79. By shutting down the flare from June 21, 2020 to December 6, 2021 without authorization from the permitting authority, while continuing to operate the digester, Renergy violated its P0125003 Condition A.9.

MICHAEL HARRIS

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Michael D. Harris
Division Director
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